



## **BI-LEVEL PROGRAMMING WITH DISCOUNT FOR DISTRIBUTION PROBLEM**

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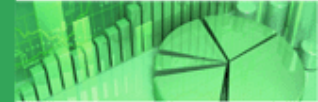
### **Abstract**

The bi-level programming for newsboy problem recognizes the manufacturer and multiple retailers as two separate entities and studies the interactive decisions between manufacturer and multi-retailers. In this paper, some models with different discount are presented, which are used to fix the wholesale price or discount so that the manufacturer can get the maximum profit. To solve these models, an efficient algorithm based on genetic algorithm and simulation is provided and some numerical examples are given.

**Keywords and phrases:** newsboy problem, bi-level programming, discount methods, genetic algorithm.

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